

YOLO-SOLANO AIR QUALITY MANAGEMENT DISTRICT
1947 Galileo Court, Suite 103, Davis, CA 95618
(530) 757-3650

TITLE V OPERATING PERMIT

Permit Number: F-01348-1

ISSUED TO:

NEO Yolo LLC
5087 Junction Road
Lockport, NY 14094

PLANT SITE LOCATION:

44090 County Road 28H
Woodland, CA 95776

ISSUED BY:



Mat Ehrhardt, P.E., Air Pollution Control Officer

4/27/2011

Date

PROPOSED	October 19, 2009
EFFECTIVE	April 27, 2011
EXPIRATION	September 26, 2011

Nature of Business: Landfill gas collection

SIC Code: 4911

Responsible Official:

Name: Anthony J. Falbo
Title: Vice President and General
Manager
Phone: (716) 439-1004

Site Contact Person:

Name: Suparna Chakladar
Title: Technical Director -
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Phone: (951) 833-4153

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I. FACILITY EMISSION UNITS AND EQUIPMENT LISTS:

A. Insignificant Emissions Units

Insignificant emissions units or exempted equipment may be supplemented, replaced or modified with non-identical equipment without notice provided exemption status has not changed as defined in current district or federal rules. The equipment listed in Table 1 is a partial listing of equipment currently identified as exempt or insignificant and not required to obtain an operating permit pursuant to Rule 3.2 (Exemptions) of the Yolo-Solano Air Quality Management District (District).

Table 1: Exempted And Insignificant Emissions Units (partial listing)

Exempt Equipment Description	Basis for Exemption
Miscellaneous Repairs & Maintenance	District Rule 3.2, Section 108

B. Significant Emissions Unit

The following emission unit has been constructed pursuant to issuance of an Authority to Construct (ATC) in accordance with District Rule 3.1 (General Permit Requirements) and Rule 3.4 (New Source Review).

Identification Number: P-26-98(a1)

Equipment Description: Landfill gas collection system, including: methane gas collection wells not to exceed 350 vertical and horizontal wells serving the conventional portions of the landfill; condensate traps; one (1) collection system blower (rated at 1,897 SCFM); and associated piping and valves

Control Equipment: One (1) 54.6 MMBtu/hr landfill gas fired LFG Specialties enclosed flare, Model F-2000, with a one (1) second residence time (shared with PTO P-15-05)

II. SPECIFIC UNIT REQUIREMENTS

A. Emission Limits

- A.1 The VOC emissions from the enclosed flare shall not exceed 14.9 lb/day, 1,344 lb/1st calendar quarter, 1,359 lb/2nd calendar quarter, 1,374 lb/3rd calendar quarter, 1,374 lb/4th calendar quarter, and 2.73 tons/year. [District Rule 3.4/C-09-91]
- A.2 The CO emissions from the enclosed flare shall not exceed 484.8 lb/day, 43,636 lb/1st calendar quarter, 44,121 lb/2nd calendar quarter, 44,606 lb/3rd calendar quarter, 44,606 lb/4th calendar quarter, and 88.48 tons/year. [District Rule 3.4/C-09-91]
- A.3 The NO_x emissions from the enclosed flare shall not exceed 78.6 lb/day, 7,076 lb/1st calendar quarter, 7,155 lb/2nd calendar quarter, 7,233 lb/3rd calendar quarter, 7,233 lb/4th calendar quarter, and 14.35 tons/year. [District Rule 3.4/C-09-91]
- A.4 The SO_x emissions from the enclosed flare shall not exceed 78.4 lb/day, 7,058 lb/1st calendar quarter, 7,136 lb/2nd calendar quarter, 7,215 lb/3rd calendar quarter, 7,215 lb/4th calendar quarter, and 14.31 tons/year. [District Rule 3.4/C-09-91]
- A.5 The PM₁₀ emissions from the enclosed flare shall not exceed 6.3 b/day, 566 lb/1st calendar quarter, 572 lb/2nd calendar quarter, 579 lb/3rd calendar quarter, 579 lb/4th calendar quarter, and 1.15 tons/year. [District Rule 3.4/C-09-91]
- A.6 The hydrogen sulfide (H₂S) content of the landfill gas combusted in the enclosed flare shall not exceed 162 ppmv. [District Rule 3.4/C-09-91]
- A.7 The emission concentrations for the flare shall not exceed the following:
- a. VOC (measured as hexane): 0.0114 lb/MMBtu;
 - b. CO: 0.370 lb/MMBtu; and
 - c. NO_x (as NO₂): 0.060 lb/MMBtu. [District Rule 3.4/C-09-91]
- A.8 The particulate matter (as PM₁₀) emission concentration for the enclosed flare shall not exceed 0.0035 gr/dscf at standard conditions. [District Rule 3.4/C-09-91]

- A.9 The Permit Holder shall not discharge into the atmosphere from any single source of emissions whatsoever, any air contaminant for a period or periods aggregating more than three (3) minutes in any one (1) hour which is:
- As dark or darker in shade than No. 1 on the Ringelmann Chart; or
 - Greater than 20% opacity. [District Rule 3.4/C-09-91]
- A.10 The combined VOC emissions from all landfill gas combustion equipment being served by this collection system shall not exceed 114.6 lb per day, 10,325 lb/1st calendar quarter, 10,440 lb/2nd calendar quarter, 10,554 lb/3rd calendar quarter, 10,554 lb/4th calendar quarter, and 20.94 tons per year. [District Rule 3.4/C-09-91]
- A.11 The combined CO emissions from all landfill gas combustion equipment being served by this collection system shall not exceed 844.2 lb per day, 75,980 lb/1st calendar quarter, 76,825 lb/2nd calendar quarter, 77,669 lb/3rd calendar quarter, 77,669 lb/4th calendar quarter, and 154.07 tons per year. [District Rule 3.4/C-09-91]
- A.12 The combined NO_x emissions from all landfill gas combustion equipment being served by this collection system shall not exceed 234.5 lb per day, 21,106 lb/1st calendar quarter, 21,341 lb/2nd calendar quarter, 21,575 lb/3rd calendar quarter, 21,575 lb/4th calendar quarter, and 42.80 tons per year. [District Rule 3.4/C-09-91]
- A.13 The combined SO_x emissions from all landfill gas combustion equipment being served by this collection system shall not exceed 126.0 lb per day, 11,346 lb/1st calendar quarter, 11,472 lb/2nd calendar quarter, 11,598 lb/3rd calendar quarter, 11,598 lb/4th calendar quarter, and 23.01 tons per year. [District Rule 3.4/C-09-91]
- A.14 The combined PM₁₀ emissions from all landfill gas combustion equipment being served by this collection system shall not exceed 100.0 lb per day, 9,011 lb/1st calendar quarter, 9,111 lb/2nd calendar quarter, 9,211 lb/3rd calendar quarter, 9,211 lb/4th calendar quarter, and 18.27 tons per year. [District Rule 3.4/C-09-91]

B. Work Practice and Operational Requirements

- B.1 The combined landfill gas usage for all combustion equipment being served by this collection system shall not exceed 2.732 million standard cubic feet per day, 245.9 million cubic feet /1st calendar quarter, 248.6 million cubic feet /2nd calendar quarter, 251.3 million cubic feet /3rd calendar quarter, 251.3 million cubic feet /4th calendar quarter, and 997.1 million cubic feet per year. [District Rule 3.4/C-09-91]
- B.2 The total amount of landfill gas combusted in the enclosed flare shall not exceed 1,310.4 million British thermal units (BTU)/day, 117,936 million BTU/1st calendar quarter, 119,246 million BTU/2nd calendar quarter, 120,557 million BTU/3rd calendar quarter, 120,557 million BTU/4th calendar quarter, and 478,296 million BTU/year. [District Rule 3.4/C-09-91]
- B.3 The Permit Holder shall operate the enclosed flare with a minimum combustion zone residence time of 1 second, and shall equip the flare with automatic temperature controls designed to control the average minimum temperature at or above a minimum temperature of 1400 °F. The enclosed flare shall also be equipped with an automatic shutoff gas valve and an automatic re-start system. [District Rule 3.4/C-09-91]
- B.4 Only landfill gas shall be burned in the flare. No supplemental fuel may be burned in the flare, excluding pilot gas. [District Rule 3.4/C-09-91]
- B.5 The number and types of components used by the operation shall match the equipment listed in the Equipment Inventory section of P-26-98(a1). The Permit Holder shall maintain a complete list of all associated gas collection equipment serving the conventional portions of the landfill, which includes a description of each system component. Any wells, piping, or valves installed in the non-conventional portions of the landfill are not covered under this permit. This list shall be kept onsite and shall be made available to the District upon request. [District Rule 3.4/C-09-91]
- B.6 All landfill gas gathered by this gas collection system shall be collected using only an approved blower with a maximum rating of 1,897 SCFM. [District Rule 3.4/C-09-91]

- B.7 The Permit Holder shall comply with all applicable standards, criteria and requirements of Section 60.752(b) of 40 CFR Part 60, Subpart WWW, Standards of Performance for Municipal Solid Waste Landfills, upon determination by the District that the Yolo County Central Landfill's uncontrolled non-methane organic compounds (NMOC) emission rate exceeds 50 megagrams per year. [District Rule 3.4/C-09-91]

C. Monitoring and Testing Requirements

- C.1 A non-resettable, totalizing gaseous fuel flow meter shall be installed and utilized to measure the quantity (in standard cubic feet) of landfill gas collected and delivered to the site by system's collection blower. The meter shall be accurate to plus or minus five percent and shall be calibrated at least once every twelve (12) months. [District Rule 3.4/C-09-91]
- C.2 A non-resettable, totalizing gaseous fuel flow meter shall be installed and utilized to measure the quantity (in standard cubic feet) of landfill gas combusted in the flare. The meter shall be accurate to plus or minus five percent and shall be calibrated at least once every twelve (12) months. [District Rule 3.4/C-09-91]
- C.3 The Permit Holder shall install and maintain such facilities on the flare stack as are necessary for sampling and testing purposes. The number, size, and location of sampling ports shall be in accordance with Air Resources Board Test Method 1. The location and access to the sampling platform shall be in accordance with the General Industry Safety Orders of the State of California. [District Rule 3.4/C-09-91]
- C.4 The Permit Holder shall analyze the fuel's higher heating value (wet basis) and sulfur content (as H₂S) at least once every twelve (12) consecutive month period. [District Rule 3.4/C-09-91]
- C.5 The Permit Holder shall perform a source test at least once every twelve (12) months in order to demonstrate compliance with the VOC, CO, and NO_x emission limits. [District Rule 3.4/C-09-91]
- C.6 Source testing shall be conducted using the following test methods:
- a. VOC - EPA Method 18, or other District approved methods;
 - b. CO - EPA Method 10 or CARB Method 100;

- c. NO_x (as NO_2) - EPA Method 7E or CARB Method 100; and
- d. Stack gas oxygen - EPA Method 3A or CARB Method 100.
[District Rule 3.4/C-09-91]

C.7 The District must be notified prior to any emissions testing event and a protocol must be submitted for approval thirty (30) days prior to testing. The results of an emissions testing event shall be submitted to the District within sixty (60) days of the test date. The protocol and report shall be mailed to the attention of the Supervising Air Quality Engineer.
[District Rule 3.4/C-09-91]

C.8 The Permit Holder shall operate the gas collection system in a manner which maximizes the amount of landfill gas extracted from the landfill, while preventing overdraw that can cause a fire or the damage of the gas collection system. [District Rule 3.4/C-09-91]

C.9 Except for active disposal areas, or areas undergoing maintenance or repair, or areas not served by the gas collection system, the Permit Holder shall operate the gas collection system in such a manner that the surface emissions testing of the landfill demonstrates the concentrations of total organic compounds (measured as methane) do not exceed 500 ppmv at any point on the surface of the solid waste disposal site or along the gas transfer path of the gas collection system. [District Rule 3.4/C-09-91]

D. Recordkeeping Requirements

D.1 The Permit Holder shall maintain a written log of all maintenance work performed that requires the shutdown of the gas collection system. The log shall include a description of work, the date work was performed, and the amount of time needed to complete the maintenance work. Emissions of landfill gas to the atmosphere shall be minimized during each shutdown. [District Rule 3.4/C-09-91]

D.2. The Permit Holder shall monitor and record on a daily basis the following quantities of landfill gas:

- a. Measured amount of landfill gas collected by the system's collection blower (in standard cubic feet);
- b. Measured amount of landfill gas combusted in the flare (in standard cubic feet); and

- c. Calculated amount of landfill gas combusted in the flare (in British thermal units). [District Rule 3.4/C-09-91]
- D.3 The Permit Holder shall calculate and record the actual combined quarterly and annual VOC, CO, NO_x, SO_x (converted from the inlet H₂S concentration using mass balance), and PM₁₀ emissions from all landfill gas combustion equipment served by this collection system. The calculations shall use each emissions unit's actual fuel usage and either:
 - a. For pollutants with on-going source testing requirements, the emission factors from the most recent source test submitted to, and approved in writing by, the District; or
 - b. For pollutants without on-going testing requirements, the established emission factor for the emissions unit used in the most recent emission evaluation. [District Rule 3.4/C-09-91]
- D.4 The Permit Holder shall maintain all records on site for a period of five (5) years from the date of entry and these records shall be made readily available to District personnel upon request. [District Rule 3.8, §302.6(b)/C-09-91]

III. FACILITY WIDE REQUIREMENTS

A. Opacity

- A.1 The Permit Holder shall not discharge into the atmosphere from any single source of emission whatsoever, any air contaminant for a period or periods aggregating more than three (3) minutes in any one (1) hour which is:
 - a. As dark or darker in shade as that designated as No. 2 on the Ringelmann Chart as published by the United States Bureau of Mines; or
 - b. Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in subsection a. of this condition. [District Rule 2.3]

B. Nuisance

- B.1 The Permit Holder shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons

or to the public or which endanger the comfort, repose, health, or safety of any such persons or the public or which cause to have a natural tendency to cause injury or damage to business or property. [District Rule 2.5] (This permit condition is federally enforceable because it derives from District Rule 2.5 - Nuisance that is currently part of the California State Implementation Plan (SIP). The District is taking steps to remove Rule 2.5 from the SIP. Once the U.S. EPA has taken final action to remove District Rule 2.5 from the SIP, this permit condition will become state-enforceable only.)

C. Circumvention

- C.1 The Permit Holder shall not build, erect, install or use any article, machine, equipment, or other contrivance, the use of which, without resulting in a reduction in the total release of air contaminants to the atmosphere, reduces or conceals an emission which would otherwise constitute a violation of Division 26, Part 3 and Part 4 of the Health and Safety Code of the State of California or District Rules or Regulations. [District Rule 2.17]

D. General Permit Requirements

- D.1 No person shall build, erect, alter, or replace any facility, article, machine, equipment, or other contrivance, the use of which may cause the issuance of air contaminants, or the use of which may eliminate or reduce or control the issuance of air contaminants, without first obtaining an authorization to construct from the Air Pollution Control Officer (APCO) as specified in Section 401 of District Rule 3.1. [District Rule 3.1, §301.1]
- D.2 No person shall operate any facility, article, machine, equipment, or other contrivance, for which an authorization to construct is required by District Rules and Regulations without first obtaining a written permit from the APCO. [District Rule 3.1, §302.1]
- D.3 No person shall operate any facility, article, machine, equipment, or other contrivance, the use of which may cause the issuance of air contaminants or the use of which may eliminate or reduce or control the issuance of air contaminants, without obtaining a permit from the APCO or the Hearing Board. [District Rule 3.1, §302.2]

- D.4 The owner or operator of any facility, article, machine, equipment, or other contrivance for which a permit to operate is in effect shall notify the District office whenever a breakdown, malfunction, or operational upset condition exists which would tend to increase emissions of air pollutants or whenever any operating condition contrary to any provision of the permit to operate exists. Such notice shall be given to the District no later than four hours after occurrence during regular workday hours or no later than two hours of the District workday following an occurrence not during regular District workday hours. The notice shall provide the District information as to causes and corrective action being taken, with a schedule for return to required operating conditions. [District Rule 3.1, §405.3]

IV. TITLE V GENERAL REQUIREMENTS

A. Right of Entry

- A.1 The permit shall require that the source allow the entry of the District, ARB, or U.S. EPA officials for the purpose of inspection and sampling, including:
- a. Inspection of the stationary source, including equipment, work practices, operations, and emissions-related activity;
 - b. Inspection and duplication of records required by the permit to operate; and
 - c. Source sampling or other monitoring activities. [District Rule 3.8, §302.10]

B. Compliance with Permit Conditions:

- B.1 The Permit Holder shall comply with all Title V permit conditions. [District Rule 3.8, §302.11(a)]
- B.2 The permit does not convey property rights or exclusive privilege of any sort. [District Rule 3.8, §302.11(b)]
- B.3 Non-compliance with any permit condition is grounds for permit termination, revocation and reissuance, modification, enforcement action, or denial of permit renewal. [District Rule 3.8, §302.11(c)]

- B.4 The Permit Holder shall not use the "need to halt or reduce a permitted activity in order to maintain compliance" as a defense for non-compliance with any permit condition. [District Rule 3.8, §302.11(d)]
- B.5 A pending permit action or notification of anticipated non-compliance does not stay any permit condition. [District Rule 3.8, §302.11(e)]
- B.6 Within a reasonable time period, the Permit Holder shall furnish any information requested by the APCO, in writing, for the purpose of determining:
 - a. Compliance with the permit; or
 - b. Whether or not cause exists for a permit or enforcement action. [District Rule 3.8, §302.11(f)]

C. Emergency Provisions:

- C.1 Within two weeks of an emergency event, the owner or operator shall submit to the District a properly signed contemporaneous log or other relevant evidence demonstrating that:
 - a. An emergency occurred;
 - b. The Permit Holder can identify the cause(s) of the emergency;
 - c. The facility was being properly operated at the time of the emergency;
 - d. All steps were taken to minimize the emissions resulting from the emergency; and
 - e. Within two working days of the emergency event, the Permit Holder provided the District with a description of the emergency and any mitigating or corrective actions taken; and

In any enforcement proceeding, the Permit Holder has the burden of proof for establishing that an emergency occurred. [District Rule 3.8, §302.12]

D. Severability

- D.1 If any provision, clause, sentence, paragraph, section or part of these conditions for any reason is judged to be unconstitutional or invalid, such judgement shall not affect or invalidate the remainder of these conditions. [District Rule 3.8, §302.13]

E. Compliance Certification

- E.1 The responsible official shall submit a compliance certification to the U.S. EPA and the APCO every 12 months unless required more frequently by an applicable requirement. [District Rule 3.8, §302.14(a)]
- E.2 The compliance certification shall identify the basis for each permit term or condition (e.g., specify the emissions limitation, standard, or work practice) and a means of monitoring compliance with the term or condition consistent with Sections 302.5, 302.6, and 302.7 of Rule 3.8. [District Rule 3.8, §302.14(b)]
- E.3 The compliance certification shall include a statement of the compliance status, whether compliance was continuous or intermittent, and method(s) used to determine compliance for the current time period and over the entire reporting period. [District Rule 3.8, §302.14(c)]
- E.4 The compliance certification shall include any additional inspection, monitoring, or entry requirement that may be promulgated pursuant to Sections 114(a) and 504(b) of the Federal Clean Air Act. [District Rule 3.8, §302.14(d)]

F. Permit Life

- F.1 The Title V permit shall expire five (5) years from the date of issuance. Title V permit expiration terminates the stationary source's right to operate unless a timely and complete Title V permit application for renewal has been submitted. [District Rule 3.8, §302.15]

G. Payment of Fees

- G.1 An owner or operator shall pay the appropriate Title V permit fees on schedule. If fees are not paid on schedule, the permit is forfeited. Operation without a permit subjects the source to potential enforcement action by the District and the U.S. EPA pursuant to Section 502(a) of the CAA. [District Rule 3.8, §302.16]

H. Permit Revision Exemption

- H.1 No permit revision shall be required under any approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in the permit.

I. Application Requirements

- I.1 An owner or operator shall submit a standard District application for renewal of the Title V permit, no earlier than 18 months and no later than six (6) months before the expiration date of the current permit to operate. [District Rule 3.8, §402.2]
- I.2 An owner or operator shall submit a standard District application for each emissions unit affected by a proposed permit revision that qualifies as a significant Title V permit modification. The application shall be submitted after obtaining any required preconstruction permits. Upon request by the APCO, the owner or operator shall submit copies of the latest preconstruction permit for each affected emissions unit. The emissions unit(s) shall not commence operation until the APCO approves the permit revision. [District Rule 3.8, §402.3]
- I.3 An owner or operator shall submit a standard District application for each emissions unit affected by the proposed permit revision that qualifies as a minor permit modification. The application shall be submitted after obtaining any required preconstruction permits. The emissions unit(s) shall not commence operation until the APCO approves the permit revision. In the application, the owner or operator shall include the following:
- a. A description of the proposed permit revision, any change in emissions, and additional applicable federal requirements that will apply;
 - b. Proposed permit terms and conditions; and
 - c. A certification by a responsible official that the permit revision meets criteria for use of minor permit modification procedures and a request that such procedures be used. [District Rule 3.8, §402.4]

J. Permit Reopening for Cause

- J.1 Circumstances that are cause for reopening and revision of a permit include, but are not limited to, the following:
- a. The need to correct a material mistake or inaccurate statement;
 - b. The need to revise or revoke a permit to operate to assure compliance with applicable federal requirements;
 - c. The need to incorporate any new, revised, or additional applicable federal requirements, if the remaining authorized life of the permit is three (3) years or greater, no later than 18 months after the promulgation of such requirement (where less than three (3) years remain in the authorized life of the permit, the APCO shall incorporate the requirements into the permit to operate upon renewal); or
 - d. Additional requirements promulgated pursuant to Title IV as they become applicable to any acid rain unit governed by the permit. [District Rule 3.8, §413.1]

K. Recordkeeping

- K.1 The Permit Holder shall record maintenance of all monitoring and support information required by any applicable federal requirement, including:
- a. Date, place, and time of sampling;
 - b. Operating conditions at the time of sampling;
 - c. Date, place, and method of analysis; and
 - d. Results of the analysis. [District Rule 3.8, §302.6(a)]
- K.2 The Permit Holder shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of sample collection, measurement, report, or application. [District Rule 3.8, §302.6(b)]

L. Reporting Requirements

- L.1 Any deviation from permit requirements, including that attributable to upset conditions (as defined in the permit), shall be promptly reported to the APCO. For the purpose of this condition prompt means as soon as reasonably possible, but no later than 10 days after detection.[District Rule 3.8, §302.7(a)]

- L.2 A monitoring report shall be submitted at least every six (6) months and shall identify any deviation from permit requirements, including that previously reported to the APCO pursuant to Section 302.7. a of Rule 3.8. [District Rule 3.8, §302.7(b)]
- L.3 All reports of deviation from permit requirements shall include the probable cause of the deviation and any preventive or corrective action taken. [District Rule 3.8, §302.7(c)]
- L.4 Each monitoring report shall be accompanied by a written statement from the responsible official that certifies the truth, accuracy, and completeness of the report. [District Rule 3.8, §302.7(e)]